WHAT IS CLAIMED IS:

1. A method for manufacturing molten irons, comprising the steps of:

providing a mixture containing iron by drying and mixing iron ores and additives;

passing the mixture containing iron through one or more successively-connected fluidized beds to convert the mixture into a reducing material that is reduced and calcined;

forming a coal packed bed, which is a heat source in which the reducing material has been melted;

charging the reducing material to the coal packed bed and supplying oxygen to the fluidized bed to manufacture molten irons; and

supplying reducing gas exhausted from the coal packed bed to the fluidized bed,

wherein in the step of providing a mixture containing iron, exhaust gas exhausted from the fluidized bed is branched to dry at least one of the iron ores and the additives.

2. The method of claim 1, wherein in the step of providing a mixture containing iron, at least one of the iron ores and the additives is dried immediately prior to supply to the fluidized bed.

3. The method of claim 2, wherein the step of providing a mixture containing iron comprises the step of:

discharging stored iron ores and additives;

drying the iron ores and additives using separate heating air while vibrating the iron ores and additives;

storing the dried iron ores and additives; and

supplying the stored iron ores and additives to the fluidized bed.

4. The method of claim 1, wherein in the step of providing a mixture containing iron, an amount of branched exhaust gas is 20~40% of an amount of exhaust gas exhausted from the fluidized bed.

5. The method of claim 1, wherein in the step of providing a mixture containing iron, at least one of the iron ores and the additives is conveyed and simultaneously dried.

6. The method of claim 5, wherein in the step of providing a mixture

containing iron, a flow rate of the exhaust gas is 20~30m/s in the case where the iron ores are conveyed.

7. The method of claim 5, wherein in the step of providing a mixture containing iron, a flow rate of the exhaust gas is 10~20m/s in the case where additives are conveyed.

8. The method of claim 1, wherein in the step of providing a mixture containing iron, the iron ores are fine ores having a grain size of 8mm or less.

9. An apparatus for manufacturing molten irons, comprising:

a conveying line for drying and conveying iron ores and additives;

one or more fluidized-bed reactors that reduce and calcine the iron ores and the additives supplied from the conveying line to perform conversion into reducing material;

a melter-gasifier for charging the reducing material and receiving the supply of oxygen to manufacture molten irons;

a reducing gas supply line for supplying reducing gas exhausted from the melter-gasifier to the fluidized-bed reactors; and

a exhaust gas branch line for branching exhaust gas exhausted from the fluidized-bed reactors and supplying the exhaust gas to the conveying line.

10. The apparatus of claim 9, further comprising:

a hopper for each of the iron ores and the additives; and

a bypass line connected to the hoppers and supplying the iron ores and additives to the conveying line.

11. The apparatus of claim 10, further comprising:

a drying assembly for drying the iron ores and additives supplied to the hopper;

a storage bin connected to the drying assembly and for storing the dried iron ores and additives; and

a conveyor belt connected to the storage bin and providing the iron ores and additives to the fluidized-bed reactors.

12. The apparatus of claim 9, wherein the conveying line is extended vertically, exhaust gas is supplied to a lower port of the conveying line, and the iron ores and additives are supplied to the conveying line at a position 1~2m higher than the supply position of exhaust gas.

13. The apparatus of claim 9, wherein a flow speed of the exhaust gas in the conveying line is 10~30m/s.

14. The apparatus of claim 9, wherein an amount of branched exhaust gas is 20~40% of an amount of exhaust gas exhausted from the fluidized-bed reactors.

15. The apparatus of claim 9, wherein the iron ores are fine ores having a grain size of 8mm or less.